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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,304	09/27/2001	Darryl Jonathan Rumph	RPS920010102US1	5029
25299	7590	01/25/2006	EXAMINER	
IBM CORPORATION PO BOX 12195 DEPT YXSA, BLDG 002 RESEARCH TRIANGLE PARK, NC 27709			YANG, LINA	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b> <span style="float: right;">06</span>	
	09/966,304		RUMPH, DARRYL JONATHAN	
	<b>Examiner</b>		<b>Art Unit</b>	
	Lina Yang		2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-23 is/are allowed.
- 6) ☒ Claim(s) 24 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Applicant's Amendment filed on November 16, 2005 in response to the Examiner's Office Action has been reviewed. Abstract and specification have been amended. Claims 1, 7-12, 14-15, 18-20 have been amended. Claims 22-25 are newly added.
2. Applicant's Terminal Disclaimer filed on Nov. 16, 2005 has been accepted and recorded.
3. Claims 1-25 are presented for examination.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 24 is rejected under 35 U.S.C. 102(e) as being anticipated by Chao et al. (U.S. Patent No. 6,370,144 B1).

Regarding claim 24, Chao teaches a method to select a queue from which a packet is to be transmitted within a communications device said method including comprising the steps of:

providing at least one calendar with  $n$  locations (location "1424" in fig. 14, col. 16 lines 58-65)  $n$  greater than 1, wherein each location includes id for a queue (each location has a id for a queue, for example, flow queue 200, fig. 14) and an indicia (validity bit) to be set in one of two states ;

partitioning the  $n$  locations into a plurality of segments ( $L$  levels, fig. 15; col. 21 lines 40-55);

searching each segment with a search engine to detect a first location having an associated indicia set to a predefined state (fig. 18 and the correspondent description on col. 23, fig. 25 and the correspondent description on col. 29 and 30 );

for each segment search, setting assumptions (lowest time stamp) for a starting point CP whereat said searching begins wherein said assumptions cause multiple searches to be executed on at least one of said plurality of segments (fig. 18 and the correspondent description on col. 23, fig. 25 and the correspondent description on col. 29 and 30 );

using outputs from the search engine to select one of the locations (Fig. 25, col. 30 lines 8-12) ; and

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transferring a packet from the queue whose id is recorded at the one of the locations (default, the invention of the patent is for effectively search the right packet in a queue to be switched).

### ***Allowable Subject Matter***

5. Applicant's arguments, see pages 15-18, with respect to the rejections of claims 1-21 have been fully considered and are persuasive; therefore, Examiner respectfully submits that claims 1-23 are allowable over the prior art of record.

6. Claim 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Byrn et al. ((US Patent No. 5,533,020B1) teaches an apparatus and method for scheduling the transmission of a number of data streams over a common communications link, where each of the data streams conforms to a corresponding set of flow control parameters. More specifically, each of the data streams to be transmitted

on the communications link is stored in a corresponding queue. The status of each queue is maintained, and a target transmission time is calculated for each queue. Signals are then generated for each queue at a time at least after the target transmission time, and these signals are used to indicate to a corresponding queue that it can transmit a cell on the link. Upon reception of a corresponding signal, a queue then transmits at least one cell onto the communications link.

Ferguson et al. (US Patent Publication Application No. 20050018682 A1) teaches a system includes an input device configured to receive a packet having a header and a packet processing device. The packet processing device is configured to examine the header, identify at least one function from a group of functions based on at least a portion of the header, where the group of functions includes an index table lookup function, a filtering function, and a longest best match lookup function, perform the identified at least one function for the packet to obtain a result, and forward the packet using the result.

Tikkanen et al. (US Patent No. 6,675,171 B2) teaches a method for implementing a memory based on a digital trie structure.

Paatela et al. (US Patent Publication Application No. 20020163935 A1) teaches a system and method for providing transformation of multi-protocol packets in a data stream.

Delp et al. (US Patent No. 6,028,843 A) teaches an earliest deadline first communications cell scheduler and scheduling method for transmitting earliest deadline cells first for scheduling the transmission of cells of a plurality of data streams in a communications network.

Likovich, Jr. et al. (US Patent No. 6,643,257 B1) teaches a method of and program for dynamically testing a buffering and selection device, wherein the buffering and selection device receives a transmission at an average bandwidth of  $T$  and in peak bandwidth bursts that may be greater than  $T$ .

Lubbers et al. (US Patent No. 5,671,406 B1) teaches an apparatus and method for performing data structure enhancements for in-place sorting of a singly linked list.

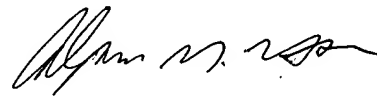
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lina Yang whose telephone number is (571) 272-3151. The examiner can normally be reached Monday through Wednesday between 7:00 a.m. and 8:00 p.m. eastern standard time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LY



ALPUS H. HSU  
PRIMARY EXAMINER